
PSYCHE.

CAMBRIDGE, MASS., OCT.—DEC. 1885.

Communications, exchanges and editors' copies should be addressed to EDITORS OF PSYCHE, Cambridge, Mass. Communications for publication in PSYCHE must be properly authenticated, and no anonymous articles will be published.

Editors and contributors are only responsible for the statements made in their own communications.

Works on subjects not related to entomology will not be reviewed in PSYCHE.

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CLOSE OF VOLUME FOUR.

For two years past, reasons personal to the Managing editor have prevented the giving of that attention to the issue of PSYCHE which otherwise should have been expected. The concluding numeros of volume four appear, therefore, two years in arrears. Care has been taken, however, that no fault of anachronism should be committed in preparing the numeros for publication.

The form of the Systematic index adopted in volume two, and more perfectly elaborated in volume three, is regarded as of such excellence in its features of general utility and extensibility, that it has been adhered to carefully in this volume. So far as seemed to be practicable, every subject treated of in this volume has been included in the Systematic index under its appropriate designation, with references to the paragraphs of the Bibliographical record.

The Alphabetic index, as in previous volumes, contains references to every technical name of a genus or species of animals mentioned by such name in the volume, with references to the pages.

The volume is committed to the custody of the subscribers and the entomological public with the sincere hope that it may be found of permanent value.

B: *Pickman Mann.*

PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

9 JAN. 1885.—The 107th meeting of the club was held at 61 Sacramento St., Cambridge, 9 Jan. 1885. In the absence of the president, Mr. R. Hayward was chosen chairman. On account of the lack of a quorum the business of the annual meeting could not be transacted, and consequently the reports of the officers were deferred until the next meeting.

Mrs. A. K. Dimmock showed specimens of a hymenopterous parasite, probably one of the pteromalids, from the eggs of *Smerinthus excaecatus*; the egg from which the specimens shown had been reared contained over thirty of these minute parasites. [See PSYCHE, Apr.-June 1885, v. 4, p. 282.]

Dr. G: Dimmock exhibited his collection of North American *cicindelidae*, and made some remarks upon the species and their distribution.

13 FEB. 1885.—The 108th meeting was held at 19 Brattle St., Cambridge, 13 Feb. 1885, the president, Mr. S: H. Scudder, in the chair. The annual address of the retiring president was delivered. The annual reports of the secretary and of the treasurer were read, and the secretary made a special report upon the condition of the library. [Abstracts of these reports, except the last, are appended to the report of this meeting. The address of the retiring president is published in PSYCHE, Jan.-Mar. 1885, v. 4, p. 245-250.] The president's address gave rise to much discussion of fossil insects, participated in by all the persons present.

Dr. G: Dimmock stated that *Heterodon platyrhinus*, the so-called "hog-nose snake," eats *Caloptenus femur-rubrum*, fragments of these insects having been found abundant in the excrement of one of these snakes taken in northern Connecticut last fall. The popular name of this species of snake in western New England is "puff-adder" or "flat-headed adder."

Dr. G: Dimmock showed a box of fine

borings which had been sent to him from Springfield, Mass., with an inquiry as to what produced them. They had been found in a house, deposited in dark places beneath furniture, in large masses. Upon examination of the debris, empty cocoons and pupal skins were abundant, which under the microscope were readily seen to be those of some species of ant. probably *Formica pennsylvanica*, which has been known previously to attack woodwork of buildings.

Dr. G: Dimmock showed a specimen of *Cermatia* that had been taken in an office in Boston, Mass.

Abstract of Secretary's Report, 13 Feb. '85.
By G: Dimmock.

The present is the 107th meeting of the Club. Since the last annual (or 98th) meeting, held 12 Jan. 1884, four active members have been elected, seven have withdrawn from membership, and two have forfeited their membership by continuous neglect to pay the annual fees. The club has continued its policy of electing no new associate members. Mr. F. G. Sanborn, an associate member, has died during the year. An obituary notice of him was published in *PSYCHE*, Aug.-Sep. 1884, v. 4, p. 205. The number of active members is now twenty-seven, and the number of associate members forty-nine. During the year 1884 the club held nine meetings, with an average attendance of four persons. Valuable and interesting communications were presented at each meeting. The Club's publication, *PSYCHE*, has steadily gained favor, and the list of exchanges with scientific societies and valuable periodicals has increased, thus bringing the club prominently before the entomologists of the world. The wide distribution of the membership of the Club, while adding to its importance, has not been compatible with large personal attendance at the meetings. The advantages of larger attendance show the advisability of increasing the number of active members, who will be able to come to the meetings in person.

Abstract of Treasurer's Report, 13 Feb. '85.
By B: Pickman Mann.

Open accounts have been kept separately with each volume of *PSYCHE*, or the years to which each corresponds. The account for volume one shows a deficit of \$19.05; that for volume two, \$239.89; and that for the years 1880 to 1882, inclusive, a balance on hand of \$34.59. No further expenditures will be incurred on these accounts, and those for volumes one and two will be met as receipts come in from the sale of copies or from other sources. Expenditures and current receipts on account of volume four still continue. The estimated deficit on this account is at least \$245.00. Especial efforts have been made to determine what debts due to the Club, for subscriptions, may be considered good for collection, and the sending of *PSYCHE* has been discontinued to all persons unreasonably in arrears. The principal of the permanent publication fund amounts to \$270.39. [The Treasurer's report was duly audited and approved.]

13 MARCH 1885.—The 109th meeting was held at 61 Sacramento St., Cambridge, 13 March 1885. In the absence of the president, Mr. T. W. Harris was chosen chairman.

The secretary stated that Mr. J: G: Jack, of Chateauguay Basin, P. Q., Canada, had withdrawn from membership, by letter dated 2 March 1885.

Dr. G: Dimmock showed some microscopical slides to illustrate the structure of the different kinds of stigmata in insects.

10 APRIL 1885.—The 110th meeting was held at 19 Brattle St., Cambridge, 10 April 1885, the president, Mr. S: H. Scudder, in the chair.

Mr. R. Hayward spoke of a trip which he proposed to take to southern Colorado, in company with Mr. F: C. Bowditch, the coming summer.

Mr. S: H. Scudder called attention to certain peculiarities of the venation of the wings of fossil cockroaches, and made some comparisons of the tertiary neuroptera of Europe

and North America. This was followed by a general discussion of fossil insects.

8 MAY 1885.—The 111th meeting was held at 19 Brattle St., Cambridge, 8 May 1885, the president, Mr. S: H. Scudder, in the chair.

Mr. S: H. Scudder read some extracts concerning mosquitoes and their abundance, from notes which he had made in 1860 while travelling about Lake Winnipeg and upon the Saskatchewan River. Some discussion followed, upon mosquitoes and other dipterous pests of similar habits.

Mr. S: H. Scudder announced the death of Dr. Hendrik Weyenbergh, well known as a naturalist and entomological writer from Holland, who had chosen the Argentine Republic as a field of labor. He died while upon a visit to his native country.

Dr. G: Dimmock explained a method which he had devised for advantageously utilizing sale-catalogs of books in preparing subject bibliographies, thereby saving much writing.

12 JUNE 1885. — The 112th meeting was held at 19 Brattle St., Cambridge, 12 June 1885, the president, Mr. S: H. Scudder, in the chair.

Mr. R. Hayward read a paper upon the distribution of insects in the White Mountains of New Hampshire, in which he called attention to the existence of four tolerably distinct faunae in these mountains. The first, which he called alpine, is restricted to the summits of the higher mountains; the second, which he termed sub-alpine, is confined to the neighborhood of the timber-line; the third occupies the greater part of the country below, and is the ordinary fauna of northern New England; while the fourth is confined to the immediate vicinity of the larger river-bottoms, and is essentially identical with that of eastern Massachusetts. Mr. Hayward's paper led to considerable discussion.

Dr. G: Dimmock described the life-history of *Sphaerularia bombi*, a nematod which is parasitic in humble-bees (*Bombus*), as it has been elucidated by Dufour, Lubbock,

Schneider, and Leuckart. Specimens of *S. bombi* were shown; these were taken 10 June 1885, in Cambridge, Mass., by Dr. Dimmock, who believed this to be the first record of their occurrence in America. [See *Amer. nat.*, Jan. 1886, v. 20, p. 73-75.] A brief discussion upon *Sphaerularia*, and upon other subjects, followed.

9 Oct. 1885.—The 113th meeting was held at 61 Sacramento St., Cambridge, 9 Oct. 1885, the president, Mr. S: H. Scudder, in the chair.

Mr. E. F. Ladd, of the N. Y. Experimental station at Geneva, N. Y., communicated, through Mr. B: P. Mann, some observations made by him in the fall of 1884, on the life-habits of *Gelechia cerealella*, which was found to have completely infested the collection of corn in the museum of the station. Hundreds of moths emerged daily, and it became necessary to burn much of the collection while the remainder was packed in boxes and treated to bisulphide of carbon [CS₂]. An examination seems to show that the larvae feed only upon the deposit of starchy matter in the kernel. Larvae were not found in the varieties of sweet corn, in which the starch is distributed throughout the kernel, but they were found, frequently two and occasionally three in a kernel, in the flint corn, in which the starch is deposited in a mass. In pairing, the moths remained together 75 minutes. One moth laid thirty-six eggs, in two patches of 17 and 19, which hatched in seven days, from 2 to 9 November. The eggs were at first milky white, showing an orange tint at the end of twenty-four hours, and gradually becoming deep orange at the end of thirty-six hours. They were laid, on the bottom of a dish, in threes, touching at the ends.

Dr. G: Dimmock described the method adopted by him in rearing *coccinellidae*, and gave a brief account of the life-history and habits of these insects.

Dr. G: Dimmock noted the excessive abundance of a species of *aphididae* on a few maples on North Avenue in Cambridge. So

abundant were these insects that, especially under one tree, the drops of their sugary secretion made the sidewalk beneath constantly appear as if there had just been a light shower. On account of this shower of sugary material the upper sides of the leaves of the trees had the appearance of having been varnished.

Mr. S: H. Scudder reviewed C: Brongnart's Fossil insects of the primary formations, and showed the proof-sheets of the first half of his contribution to Zittel's Handbook of paleontology. The portion, of which proofs were shown, treated of the myriopoda, the arachnida, and part of the insecta, and was abundantly illustrated.

13 Nov. 1885.—The 114th meeting was held at 61 Sacramento St., Cambridge, 13 Nov. 1885.

Dr. G: Dimmock exhibited a collection of bred *coccinellidae*, among which were many varieties bred from a single pair of *Coccinella novemnotata*.

Mr. R. Hayward showed a few specimens of several coleoptera collected by him in southwestern Colorado during the past summer. Among them were *Amphizoa insolens* and a specimen of *Nebria trifaria*. The *Nebria* showed a curious monstrosity, the tarsi of the right anterior leg being trifurcated. In all other respects it was a normal specimen.

Mr. F. S. Child spoke of a specimen of *Argynnis idalia* which he had taken in Barnstable co., Mass., exhibiting remarkable colorational variation. He also mentioned the occurrence, in the autumn of 1883, of *Euptoicta claudia* at Magnolia, Mass.

11 Dec. 1885.—The 115th meeting was held at 19 Brattle St., Cambridge, 11 Dec. 1885.

On motion of R. Hayward a vote of thanks was tendered unanimously to Mr. S: H. Scudder for the use of the office of *Science* for club meetings during the past two years.

Mr. S: H. Scudder reviewed a recently published paper by Prof. Felix Plateau, entitled "Recherches expérimentales sur la vision chez les insectes" (Bull. Acad. roy. Belgique, 1885, ser. 3, v. 10). The chief ob-

ject of Prof. Plateau's researches was to discover if insects could distinguish the shape of objects.

Mr. S: H. Scudder made some remarks upon the cockroaches (*blattariae*) of the mesozoic period, and exhibited six chromolithographic plates of New England butterflies. The plates gave rise to considerable discussion on different species of New England butterflies.

Mr. P. S. Abbot noted the capture of *Euptoicta claudia* and *Junonia coenia* at Old Orchard Beach, Maine, in 1882.

Mr. B: P. Mann communicated (through the secretary) two notes accompanied by specimens. The first was concerning a digger-wasp (*Stizus*) and a cicada (*Cicada*): "In regard to the cicada and wasp there is nothing new to say. They were caught in the house, the wasp bringing the cicada in its legs as *Stizus* is known to do. The cicada seemed to be dead when picked up from the floor where the wasp had dropped it upon finding itself hemmed in by the walls and window panes." The other communication was concerning a butterfly, *Eudamus tityrus*, and will be published in PSYCHE.

Dr. G: Dimmock showed a large larva of some species of *oestridae* (? *Culexebra emasculator*), which had been sent to him by Mr. Leroy H. Sykes, of Suffield, Conn. This larva was taken by Mr. Sykes, about 20 Sept. 1884, from beneath the skin of a chip-squirrel (*Tamias striatus*) just at the right of the median ventral line, near the umbilicus. Mr. Sykes thinks the squirrel was a castrate.

Dr. G: Dimmock explained an apparatus by which he was enabled to rear insects in gases of different kinds or in determinate proportions of gases and air.

Dr. G: Dimmock described the way in which the red mites that were so abundant about Cambridge this year produced the fine, light colored lines upon leaves of clover, grass and other plants. Leaves which had been marked by these mites were shown.

Dr. G: Dimmock mentioned certain habits of *Corixa* and *Notonecta*.